

Cal/Ecotox
Exposure Factors for Brush Rabbit (Sylvilagus bachmani)*

Page 1

Endpoint Type	Endpoint Value	Error	Range	Units	Sex	Life Stage	Location	Note	Reference
Age at Sexual Maturity			4 - 5	mo	B	Adult	CA	a	1
Age at Sexual Maturity	1+			yr	M	Adult	OR	b	2
Body Weight - Mean	637	7		g	F	Adult	CA	c	3
Body Weight - Mean	732.25	80.85 SD	573 - 915	g	F	Adult	OR	d	4
Body Weight - Mean	661.47	66.73 SD	560 - 793	g	F	Adult	OR	e	4
Body Weight - Mean	583	8		g	M	Adult	CA	f	3
Body Weight - Mean	649.50	62.89 SD	511 - 797	g	M	Adult	OR	g	4
Body Weight - Mean	661.86	62.68 SD	525 - 741	g	M	Adult	OR	h	4
Body Weight - Mean			24.3 - 30.2	g	B	Embryo	Alameda; Contra Costa; Lake; Marin; Napa; CA	i	5
Body Weight - Mean	75.8			g	B	Juvenile	CA	j	6
Body Weight - Mean	25.5		23.8 - 27.3	g	B	Juvenile	CA	k	6
Clutch or Litter Size			2.67 - 3.27	young/litter	F	Adult	OR	l	2
Clutch or Litter Size	3.5		2 - 6	young/litter	F	Adult	CA	m	1
Clutch or Litter Size	4		3 - 6	young/litter	F	Adult	Alameda; Contra Costa; Lake; Marin; Napa; CA	n	5
Clutch or Litter Size	review				F	Adult	CA	o	7
Clutches or Litters per year			5 - 6	litters/yr	F	Adult	OR	p	2
Clutches or Litters per year			3 - 4	litters/yr	F	Adult	Alameda; Contra Costa; Lake; Marin; Napa; CA	q	5
Clutches or Litters per year	review				F	Adult	CA	r	7
Duration of Incubation or Gestation	27	3		d	F	Adult	Alameda; Contra Costa; Lake; Marin; Napa; CA	s	5
Duration of Incubation or Gestation	review				F	Adult	CA	t	7
Home Range	69	8		ft	F	Adult	CA	u	3
Home Range	149		38 - 569	ft	F	Adult	Humboldt; CA	v	8
Home Range	108.5	55.3 SD	30.4 - 233.6	ft	F	Adult	OR	w	9
Home Range	115	10		ft	M	Adult	CA	x	3
Home Range	278		50 - 556	ft	M	Adult	Humboldt; CA	y	8
Home Range	122.4	45.9 SD	63.5 - 237.2	ft	M	Adult	OR	z	9
Home Range	review				NR	Adult	CA	aa	10
Home Range	191		31 - 500	ft	F	Juvenile	Humboldt; CA	ab	8
Home Range	99.0	37.4 SD	41.3 - 158.3	ft	F	Juvenile	OR	ac	9
Home Range	131		25 - 325	ft	M	Juvenile	Humboldt; CA	ad	8
Home Range	151.0	77.3 SD	35.7 - 306.4	ft	M	Juvenile	OR	ae	9
Home Range	review				B	NR	CA	af	7
Longevity	3.5			yr	B	Adult	CA	ag	3
Population Density	2.3			#/acre	B	Both Adult and Juv.	CA	ah	3
Population Density	0.9			#/acre	B	Both Adult and Juv.	CA	ai	3
Population Density	review				B	NR	CA	aj	7
Time of Mating/ Laying	Feb. - Aug.				B	Adult	OR	ak	2
Time of Mating/ Laying	Jan. - May				B	Adult	Alameda; Contra Costa; Lake; Marin; Napa; CA	al	5
Time of Mating/ Laying	review				B	Adult	CA	am	7
Time of Mating/ Laying	review				B	Adult		an	11

Endpoint Type	Endpoint Value	Error	Range	Units	Sex	Life Stage	Location	Note	Reference
Time of Mating/ Laying	Feb. - May				M	Adult	CA	ao	3

Notes

- a maturity based on presence of adult pelage; N=NR
- b maturity based on amount of sperm in epididymides; N=NR; E.E. Wilson Game Management Area, Corvallis
- c N=101; yr-round; Berkeley Hills; see citation for seasonal changes in body weights
- d N=45; Mar. - Aug.; E.E. Wilson Game Management Area, Corvallis; see citation for total length and liver, heart, spleen, kidney and adrenal weight data
- e N=38; Sept. - Feb.; E.E. Wilson Game Management Area, Corvallis; see citation for total length and liver, heart, spleen, kidney and adrenal weight data
- f N=76; yr-round; Berkeley Hills; see citation for seasonal changes in body weights
- g N=22; Mar.-Aug.; E.E. Wilson Game Management Area, Corvallis; see citation for total length and liver, heart, spleen, kidney and adrenal weight data
- h N=23; Sept. - Feb.; E.E. Wilson Game Management Area, Corvallis; see citation for total length and liver, heart, spleen, kidney and adrenal weight data
- i weight just prior to birth; N=NR
- j N=3; Age=14 d; Golden Gate Park, San Francisco; see citation for figure of changes in weight over time
- k N=5; Age=3 d; Golden Gate Park, San Francisco; see citation for figure of changes in weight over time
- l range of mean litter sizes over 2 yrs, based on embryo and placental scar counts; N=9-15/yr; E.E. Wilson Game Management Area, Corvallis
- m N=11
- n N=14
- o reported average of 9-16 young/female/yr (data source not specified); N=NR
- p estimated by dividing length of breeding season by gestation period or time required to produce a litter; N=NR; E.E. Wilson Game Management Area, Corvallis
- q estimated by dividing breeding season length by gestation time; N=NR
- r reported 3-4 litters per season (data source not specified); N=NR
- s N=NR
- t reported gestation period was 27 d (data source unspecified); N=NR
- u average radii drawn from computed center of activity to capture points; N=10; Apr.; Berkeley Hills; see citation for seasonal changes in home range
- v mean range diameter; N=31; Feb. - Aug.; Humboldt Bay
- w mean and range of one standard diameter, home range estimated by "center of activity" method; N=24; yr-round; E.E. Wilson Game Management Area, Corvallis
- x average radii drawn from computed center of activity to capture points; N=10; Apr.; Berkeley Hills; see citation for seasonal changes in home range
- y mean range diameter; N=32; Feb. - Aug.; Humboldt Bay
- z mean and range of one standard diameter, home range estimated by "center of activity" method; N=12; yr-round; E.E. Wilson Game Management Area, Corvallis
- aa see citation for home range allometry for 14 species of lagomorphs; N=NR
- ab mean range diameter; N=22; Feb. - Aug.; Humboldt Bay
- ac mean and range of one standard diameter, home range estimated by "center of activity" method; N=14; yr-round; E.E. Wilson Game Management Area, Corvallis
- ad mean range diameter; N=17; Feb. - Aug.; Humboldt Bay
- ae mean and range of one standard diameter, home range estimated by "center of activity" method; N=9; yr-round; E.E. Wilson Game Management Area, Corvallis
- af reported home range for males was 957m2 for males and 244 m2 for females (from unpublished reports); N=NR; Caswell Memorial State Park
- ag longest recorded life span; N=NR; Berkeley Hills
- ah N=26; Sept.; Berkeley Hills
- ai N=10; Apr.; Berkeley Hills
- aj reported overall population density at carrying capacity is 3 animals/ha (from unpublished reports); N=NR; Caswell Memorial State Park
- ak time of breeding; N=87; E.E. Wilson Game Management Area, Corvallis
- al time of mating; N=NR
- am reported breeding season occurs from January to May (from unpublished reports); N=NR; Caswell Memorial State Park
- an N=NR
- ao time of breeding; N=NR; Berkeley Hills

References

- 1 Orr, R.T. 1940. The rabbits of California. Occas. Pap. Calif. Acad. Sci. 19:1-227.

Exposure Factors for Brush Rabbit (*Sylvilagus bachmani*)

Page 3

- 2 Chapman, Joseph A. and Amy L. Harman. 1972. The breeding biology of the brush rabbit population. J. Wildl. Manage. 36:816-823.
- 3 Connell, Joseph H. 1954. Home range and mobility of brush rabbits in California chaparral. J. Mammal. 35:392-405.
- 4 Chapman, Joseph A. 1971. Organ weights and sexual dimorphism of the brush rabbit. J. Mammal. 52:453-455.
- 5 Mossman, Archie S. 1955. Reproduction of the brush rabbit in California. J. Wildl. Manage. 19:177-184.
- 6 Orr, Robert T. 1942. Observations of the growth of young brush rabbits. J. Mammal. 23:298-302.
- 7 Larsen, Caryla J. Dec. 1993. Status review of the riparian brush rabbit (*Sylvilagus bachmani riparius*) in California. Sacramento, CA: California Department of Fish and Game, Nongame Bird and Mammal Section Report. No. 93-12 ed. 1-22 p.
- 8 Shields, Paul W. 1960. Movement patterns of brush rabbits in northwestern California. J. Wildl. Manage. 24:381-386.
- 9 Chapman, Joseph A. 1971. Orientation and homing of the brush rabbit (*Sylvilagus bachmani*). J. Mammal. 52:686-699.
- 10 Swihart, Robert K. 1986. Home range - body mass allometry in rabbits and hares (Leporidae). Acta Theriol. 31:139-148.
- 11 Chapman, Joseph A. 1974. *Sylvilagus bachmani*. Mamm. Species. 34:1-4.

*Cal/EPA, OEHHA and the University of California Regents are not responsible for damages of any kind resulting from the use of or reliance on information in this report. Users are encouraged to consult the original data. Updated: February 1999.